

WHAT IS CLAIMED IS:

1. A data conversion system including a terminal device belonging to a first communication network, a server device belonging to a second communication network having a protocol different from that of said first communication network and a protocol conversion device provided at a connection point between said first communication network and said second communication network for conducting protocol conversion, comprising:

data conversion means for receiving constraint information peculiar to said terminal device added to a request from said terminal device for obtaining predetermined contents from said server device and converting predetermined contents obtained from said server device into data based on said constraint information.

2. The data conversion system as set forth in claim 1, wherein

said data conversion means determines whether predetermined contents obtained from said server device are image data or not and when said predetermined contents are image data, converts said predetermined contents into data based on said constraint information.

3. The data conversion system as set forth in claim 1, wherein

said data conversion means is provided at said protocol conversion device.

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4. The data conversion system as set forth in claim 1, further comprising

storage means for storing said constraint information from said terminal device, wherein

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said data conversion means converts predetermined contents obtained from said server device based on said constraint information stored in said storage means.

5. The data conversion system as set forth in claim 1, wherein

said protocol conversion device includes:

said data conversion means and

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storage means for storing said constraint information from said terminal device,

said data conversion means converting predetermined contents obtained from said server device based on said constraint information stored in said storage means.

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6. The data conversion system as set forth in claim 1, wherein

said data conversion means is provided at said

server device.

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7. The data conversion system as set forth in claim 1, wherein

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said protocol conversion device transmits said request received from said terminal device and said constraint information added to said request to said server device, and

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said server device includes storage means for storing said constraint information from said protocol conversion device and said data conversion means for converting said predetermined contents based on said constraint information stored in said storage means.

8. The data conversion system as set forth in claim 1, wherein

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said constraint information includes at least one of size information of images and gradation information of images.

9. The data conversion system as set forth in claim 1, wherein

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said first communication network is a communication network for portable information terminals and said second communication network is the Internet.

10. A data conversion method in a data conversion

system including a terminal device belonging to a first communication network, a server device belonging to a second communication network having a protocol different from that of said first communication network and a protocol conversion device provided at a connection point between said first communication network and said second communication network for conducting protocol conversion, comprising the steps of:

- 5                   adding constraint information peculiar to said terminal device to a request from said terminal device for obtaining predetermined contents from said server device and transmitting the obtained request to said protocol conversion device, and
- 10                   receiving said constraint information from said terminal device to convert predetermined contents obtained from said server device into data based on said constraint information.

11.       The data conversion method as set forth in claim 10, wherein

- said data conversion step includes the steps of:
- determining whether predetermined contents
- 5                   obtained from said server device are image data or not, and

                  when said predetermined contents are image data, converting said predetermined contents into data based on said constraint information.

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12. The data conversion method as set forth in claim 10, wherein

said constraint information includes at least one of size information of images and gradation information of images.

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13. The data conversion method as set forth in claim 10, wherein

said first communication network is a communication network for portable information terminals and said second communication network is the Internet.

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14. A computer readable memory which stores a data conversion program for executing data conversion in a data conversion system including a terminal device belonging to a first communication network, a server device belonging to a second communication network having a protocol different from that of said first communication network and a protocol conversion device provided at a connection point between said first communication network and said second communication network for conducting protocol conversion,

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said data conversion program comprising the steps of:

adding constraint information peculiar to said terminal device to a request from said terminal device

15 for obtaining predetermined contents from said server  
device and transmitting the obtained request to said  
protocol conversion device, and  
receiving said constraint information from said  
terminal device to convert predetermined contents  
20 obtained from said server device into data based on said  
constraint information.

15. The computer readable memory which stores a data  
conversion program as set forth in claim 14, wherein  
said data conversion step of said data conversion  
program includes the steps of:

5 determining whether predetermined contents  
obtained from said server device are image data or not,  
and

when said predetermined contents are image data,  
converting said predetermined contents into data based  
10 on said constraint information.

16. The computer readable memory which stores a data  
conversion program as set forth in claim 14, wherein  
said constraint information includes at least one  
of size information of images and gradation information  
5 of images.

17. The computer readable memory which stores a data  
conversion program as set forth in claim 14, wherein

said first communication network is a  
communication network for portable information terminals  
5 and said second communication network is the Internet.

18. A data conversion system including a terminal  
device belonging to a first communication network, a  
server device belonging to a second communication  
network having a protocol different from that of said  
5 first communication network and a protocol conversion  
device provided at a connection point between said first  
communication network and said second communication  
network for conducting protocol conversion, comprising:  
data conversion unit which receives constraint  
10 information peculiar to said terminal device added to a  
request from said terminal device for obtaining  
predetermined contents from said server device and  
converts predetermined contents obtained from said  
server device into data based on said constraint  
15 information.

19. The data conversion system as set forth in claim  
18, wherein  
said data conversion unit determines  
whether predetermined contents obtained from said  
5 server device are image data or not and when said  
predetermined contents are image data, converts said  
predetermined contents into data based on said

constraint information.

20. The data conversion system as set forth in claim 18, wherein

said data conversion unit is provided at said protocol conversion device.

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21. The data conversion system as set forth in claim 18, further comprising

storage unit which stores said constraint information from said terminal device, wherein

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said data conversion unit converts predetermined contents obtained from said server device based on said constraint information stored in said storage unit.

22. The data conversion system as set forth in claim 18, wherein

said protocol conversion device includes:

said data conversion unit and

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storage unit which stores said constraint information from said terminal device,

said data conversion unit converting predetermined contents obtained from said server device based on said constraint information stored in said storage unit.

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23. The data conversion system as set forth in claim



18, wherein

5       said protocol conversion device transmits said  
request received from said terminal device and said  
constraint information added to said request to said  
server device, and

10       said server device includes storage unit which  
stores said constraint information from said protocol  
conversion device and said data conversion unit which  
converts said predetermined contents based on said  
constraint information stored in said storage unit.

24.       The data conversion system as set forth in claim  
18, wherein

5       said constraint information includes at least one  
of size information of images and gradation information  
of images.

25.       The data conversion system as set forth in claim  
18, wherein

5       said first communication network is a  
communication network for portable information terminals  
and said second communication network is the Internet.